

# Family farming in a changing landscape: How activities change when forest disappears

Feintrenie L, Gillet P, Garcia C, Boulaud AI, Ferlay A, codina  
Llavinia E, Lehnebach C, Vermeulen C.

# On the menu

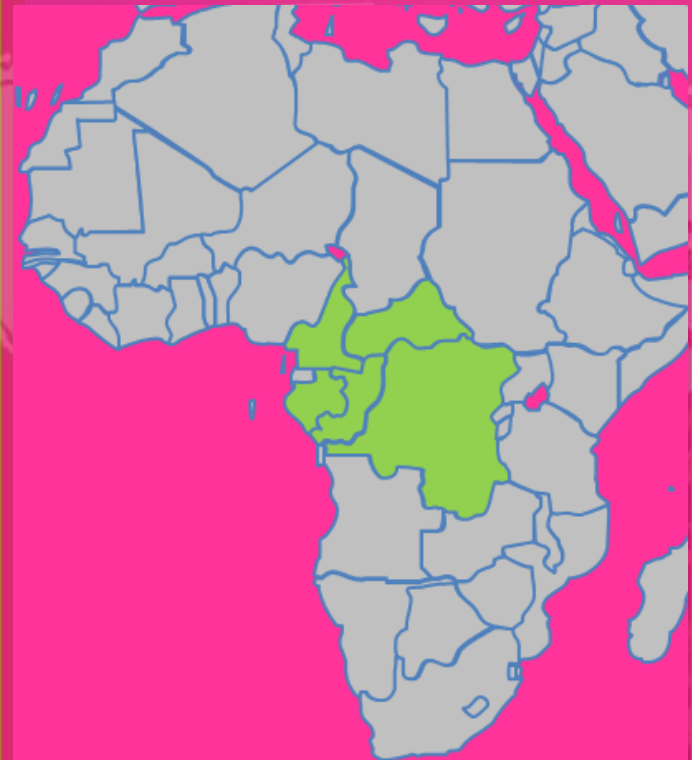
- Method and study sites
- Family farming
- Households and changes
- Discussion
- Take home message







## Method



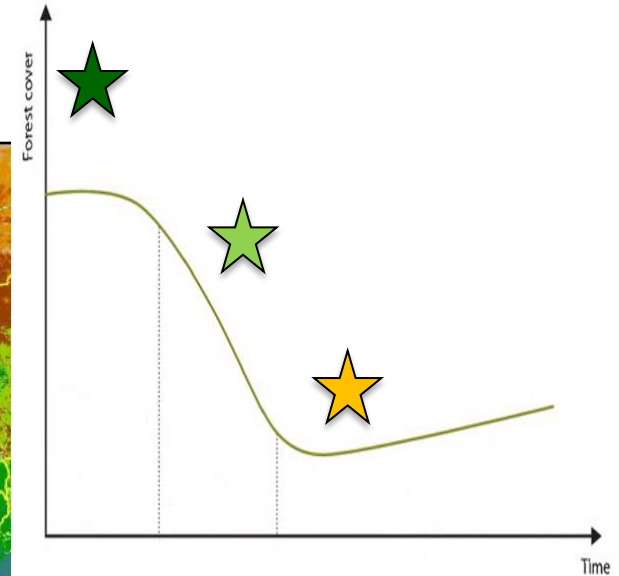


# The Forest transition in the Congo Basin

**Guefigue  
(Cameroon)**

**Mindourou,  
(Cameroon)**

**Makokou  
(Gabon)**







## Guefigue (Cameroon)



## Mindourou, (Cameroon)



## Makokou (Gabon)



65 hab/km<sup>2</sup>



3,33 hab/km<sup>2</sup>



1,33 hab/km<sup>2</sup>

Village la scierie



Village Massaha

# Method

- Agrarian diagnosis
- Livelihoods surveys
- Census

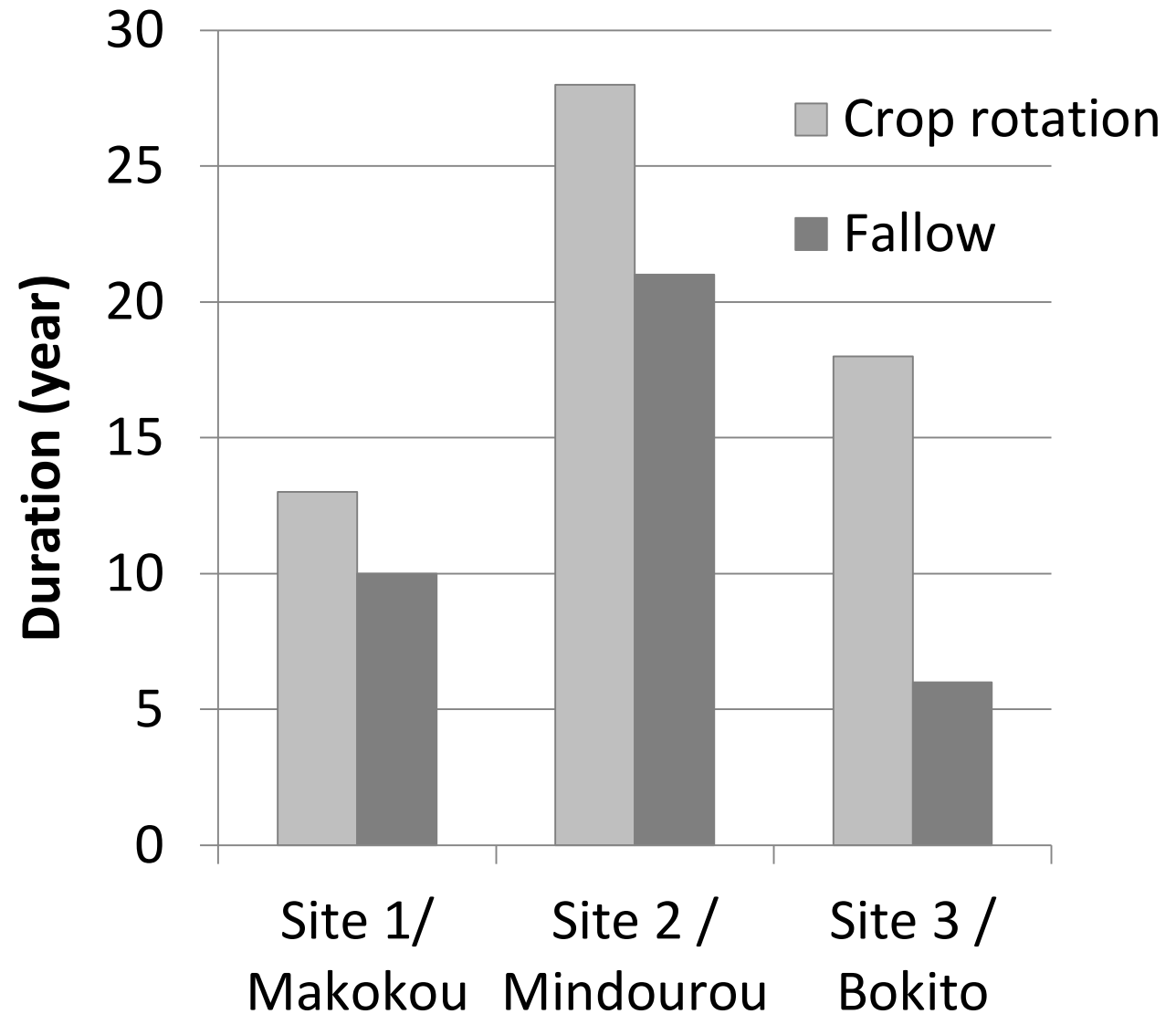
	Technic and economic survey	Farming systems and history	Census (full population)	Production estimation
Site 1	54 HH	104 resp.	296 HH	10 plots
Site 2	25 HH	96 resp.	808 HH	10 plots
Site 3	16 HH	81 resp.	455 HH	15 plots
Total	95 HH	281 resp.	1559 HH	35 plots





Family farming

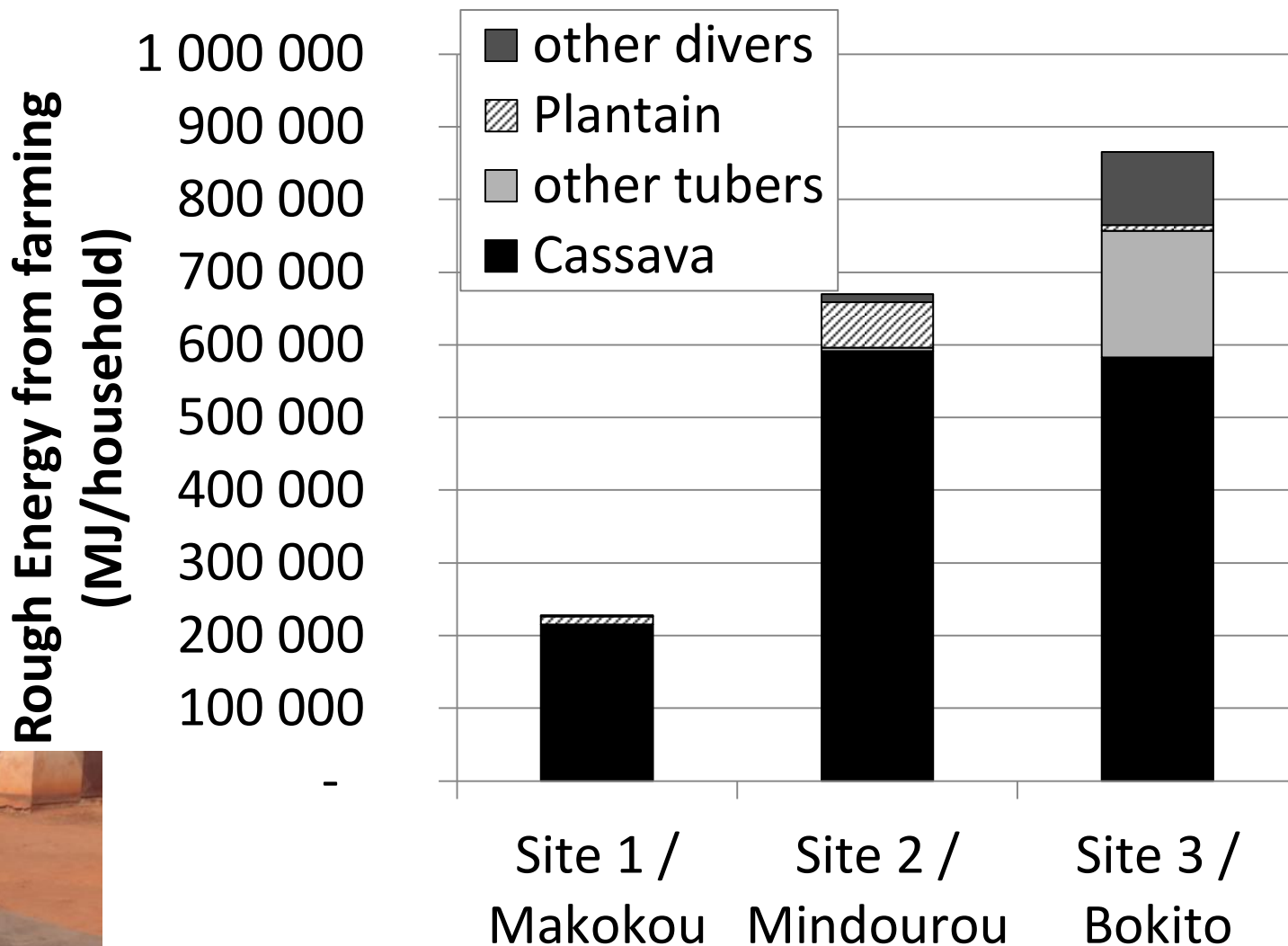
# Food crop system





Year	Site 1 / Makokou	Site 2 / Mindourou	Site 3 / Bokito
n	cucumeropsis sp., Yam, Cassava, Pineapple, Plantain	cucumeropsis sp.	Yam, cocoyam, Cassava, Pineapple, Plantain
n+1	Pineapple, Corn, Cassava, Plantain	Groundnut, Corn, Plantain, cocoyam, Cassava	Groundnut, Corn, Pineapple, Plantain
n+2	Cassava, Plantain	Cassava, cocoyam, Plantain	Sweet potato, Corn, Pineapple, Plantain
n+3	Fallow	Fallow	Groundnut, Corn, Pineapple, Plantain
n+4	Fallow	Fallow	Sweet potato, Corn, Pineapple, Plantain
n+5	Fallow	Fallow	Groundnut, Corn, ,Pineapple, Plantain
n+6	Fallow	Groundnut, Corn, Plantain, cocoyam, Cassava	Sweet potato, Corn, Pineapple, Plantain
n+7	77 %	Cassava, cocoyam, Plantain	Groundnut, Corn, Pineapple, Plantain
n+8		Fallow	Sweet potato, Corn, Pineapple, Plantain
n+9		Fallow	Groundnut, Corn, Pineapple, Plantain
n+10		Fallow	Sweet potato, Corn, Pineapple, Plantain
n+11		Groundnut, Corn, Plantain, cocoyam, Cassava	Groundnut, Corn, Pineapple, Plantain
n+12	Fallow	Cassava, cocoyam, Plantain	Fallow
n+13		Fallow	Fallow
n+14		Fallow	33 %
n+15		75 %	
n+16			Fallow
n+17		Fallow	Fallow
n+18		Fallow	
n+19		Logging = Men’s activities	
n+20		Fallow	
n+21		Fallow	
n+22		Fallow	
n+23		Fallow	
n+24		Fallow	
n+25		Fallow	
n+26		Fallow	
n+27		Fallow	

# Nutritive value of the food crop production







## Households and changes



# Objective of agricultural production



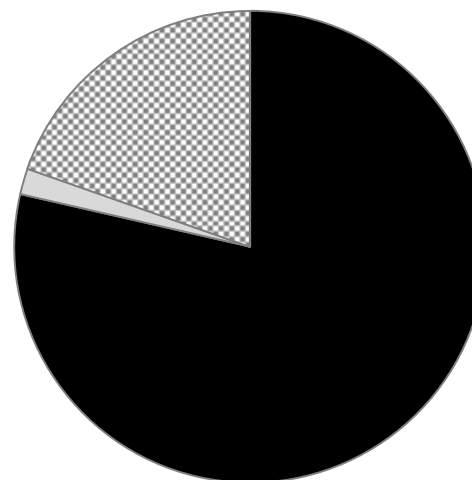
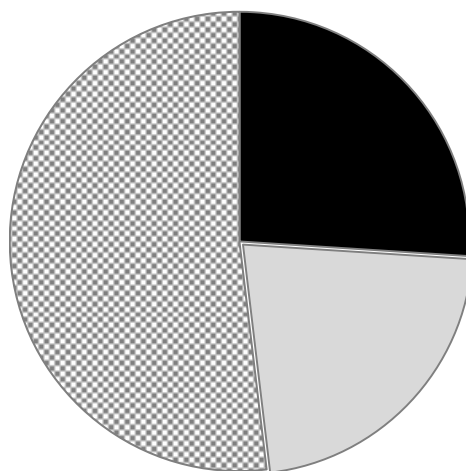
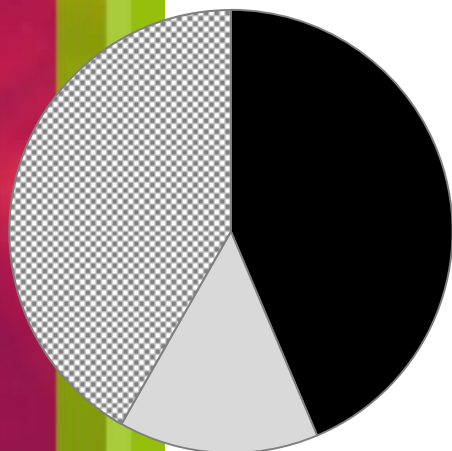


# Main source of income

**Site 1 / Makokou**

**Site 2 /  
Mindourou**

**Site 3 / Bokito**



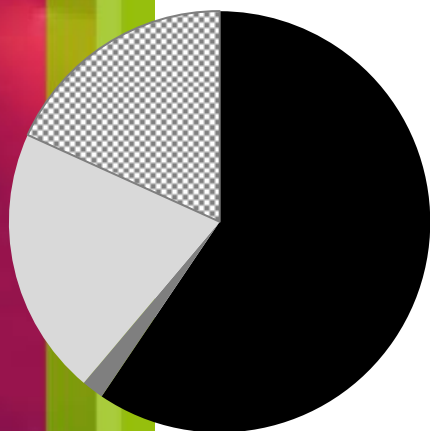
■ farming

□ forest

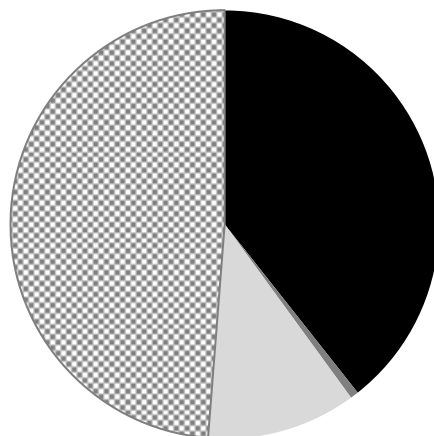
▤ other

# Distribution of the active population

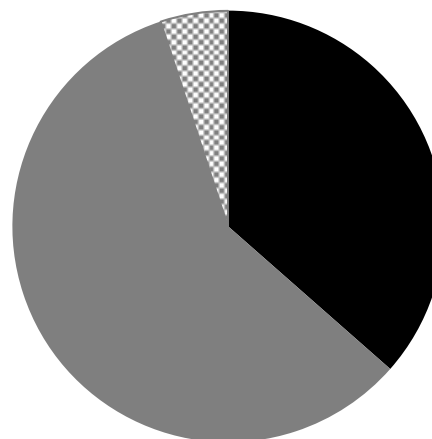
Site 1 /  
Makokou



Site 2 /  
Mindourou



Site 3 / Bokito



■ food-crops

■ cash-crops

■ hunting,  
fishing,  
gathering

■ other



## Discussion

- Dynamics at local scale coherent with forest transition theory
- From self-sufficient strategy to cash crops and jobs
- Agriculture intensification is accompanied by agriculture expansion
- Progressive adjustment of forest cover: through active planting for cash crop production
- Drivers of change are external

# Take home message

- Food crop system resilient.
- Food crop production is a safety net.
- Strategies of forest dwellers and farmers change and adapt to exogenous changes.
- Development and conservation projects should include this in their strategies.



# CoForTips

*This research was funded by the ERA-Net BiodivERsA, with the national funders ANR, BELSPO and FWF, part of the 2012 BiodivERsA call for research proposals.*

